HSURC
Issues & Directions
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Health Services Utilization and Research Commission

Psychiatric Hospitalizations and Subsequent Use of Community Services: A Pilot Study

The Health Services Utilization and Research Commission (HSURC) investigated the use of inpatient and subsequent community-based care for mental health clients in three Saskatchewan health districts. The findings of our pilot study are consistent with the literature that shows many mental health patients can be effectively treated with short hospital stays. Saskatchewan patients, however, may be in hospital longer than required. Our preliminary data suggest that observation and sub-acute care, as well as better integration and availability of community care, may reduce non-acute use of inpatient services. Based on these findings, HSURC recommends that health districts review their use of inpatient and subsequent community-based care. Using this paper as a catalyst for discussion, we also ask mental health service managers, providers, and users to contact HSURC and share with us their views as to the future research most needed to support the delivery of effective and efficient mental health services in Saskatchewan.

Introduction

The Health Services Utilization and Research Commission (HSURC) wants to assist Saskatchewan health districts deliver an effective and efficient mental health care system, one that reflects evidence-based practice. In an earlier Issues and Directions paper[1], HSURC identified evaluation as one prerequisite to this. The present paper focuses on another key element: appropriate use of inpatient services.

The starting point for our research was a study of reduced length of hospitalization in Saskatoon.[2] We then completed a comprehensive literature review[3] that provided evidence that short-stay hospitalization is equally or more effective than longer hospitalization, particularly where community services are used as an alternative to inpatient care. Based on this review, we developed three primary lines of inquiry.

First, we were interested in whether there is significant non-acute use of psychiatric hospital beds in Saskatchewan. Some people have suggested that non-acute hospital days — which contribute to extended lengths of stay — are partially a reflection of a need for more or better alternate levels of care. We therefore wanted to know the rate of non-acute psychiatric hospital days, the most appropriate alternate levels of care for these non-acute days, and the reasons they were not used (e.g., availability).

Second, we were interested in the extent to which community services substitute for longer hospital stays, that is, whether short-stay patients use more community services (as an alternative to non-acute hospital days) when compared to long-stay patients. We also wanted to see whether patient outcomes differ according to where they receive the bulk of their care (hospital versus community).

Third, we were interested in whether shorter hospitalization is associated with an increased risk for readmission. Although research does not generally support this[4], some individuals express concern that short-stay practice contributes to a "revolving door," wherein short stays are associated with more frequent hospitalization than long stays.

Once we had identified our research questions and designed a study method, we completed a three-site pilot study. A pilot study allows researchers to identify areas for improvement in their study methods and to test the reliability and validity of the data it produces, prior to conducting a full-scale study. As part of an original study design, we had planned to access provincial data on mental health community services use. The quality of this data, however, was not sufficient, so we developed an alternative method of tracking community service use. Prior to conducting a full-scale study, we wanted to test this method, as well as the instruments we intended to use for evaluating inpatient services and health status.

We want to ensure that our research will yield critical and relevant information for stakeholders, and thus want to hear what research they think is needed to foster an effective and efficient system.

Purpose

Before moving to a full-scale study, we have decided to release our pilot results. Although these results are preliminary and the specific findings have limited generalizability, we felt that the implications of the general findings warranted sharing the information with stakeholders. Another purpose in releasing this report is to stimulate discussion between HSURC and managers, providers, and users of mental health services. We want to ensure that our research will yield critical and relevant information for stakeholders, and thus want to hear what research they think is needed to foster an effective and efficient system.

Methods

Who participated in the pilot study?

One psychiatric unit from each of three Saskatchewan health districts participated in this study: Prince Albert (Victoria Hospital), Saskatoon (Royal University Hospital), and East Central (Yorkton Regional Health Centre). Specially trained research nurses enrolled all consenting patients admitted to these psychiatric units who were between the ages of 18 and 65 years, and who lived within the unit's service area. Consent was obtained from the patient or, in cases in which the patient was unable to consent, the patient's next-of-kin or guardian.

What tools did we use to collect our data?

Research nurses collected study data using the following tools:

1. The InterQual Intensity of Service, Severity of Illness and Discharge Screens Review System (ISD-AC©, 1998[5]). This is a

research tool that uses a series of criteria, based on symptom severity and intensity of service, to determine whether a patient is in need of acute care on admission to a hospital and on each subsequent day of stay. An acute classification means that the patient has symptoms and treatment needs that are best met in an acute care facility. A non-acute rating does not indicate that a patient requires no care, but simply that the patient's symptoms and treatment needs could be met at a non-acute level of care (either hospital-based, such as sub-acute or observation levels of care, or non-hospital based, such as community care, home care, etc.). In addition to assessing a patient's acuity, the ISD-AC® also identifies the alternate levels of care appropriate for non-acute hospital days (Table 1), and the reasons these alternate levels of care were not used (Table 2).

2. The Brief Psychiatric Rating Scale[6] (BPRS). The BPRS assesses a patient's clinical status with respect to psychiatric symptoms. It evaluates the presence and severity of 24 symptoms (e.g., delusions, blunted affect), each on a seven-point scale, to produce one total score, with a possible range of 24 to 168. The higher the score, the greater the symptom severity.

3. Global Assessment of Functioning Scale[7] (GAF). The GAF Scale is a measure of a patient's psychological, social, and occupational functioning. The rater assigns one number, ranging from 0 to 100, to indicate the patient's overall functioning. The higher the score, the greater the functioning.

A non-acute rating does not indicate that a patient requires no care, but simply that the patient's symptoms and treatment needs could be met at a non-acute level of care.

How did we collect the data?

Research nurses completed four phases of data collection with study participants: an admission review, a daily inpatient review, a discharge review, and a community follow-up review.

The admission review was completed within 72 hours of admission to the unit. During this review, study nurses completed an assessment of patient acuity (ISD-AC®), symptom severity (BPRS), and level of functioning (GAF). For the daily inpatient review, nurses reassessed patient acuity for every subsequent hospital day. For the discharge review, study nurses recorded patient demographics, clinical status and history, psychiatric treatments and complications during the current hospitalization, patient support systems, and community services recommended on discharge, and reassessed patient symptom severity and level of functioning. The final phase of data collection, the community follow-up, was completed 30-45 days after the patient's

In addition to assessing a patient's acuity, the ISD-AC also identifies the alternate levels of care appropriate for non-acute hospital days, and the reasons these alternate levels of care were not used.

Table 1. Definitions of alternate levels of care

Alternate level of care	***Description of care required by patient***
Observation care	Requires close medical and nursing observation, either for safety reasons or to decide whether admission is required (usually a 24 hour limit)
Sub-acute care	Requires daily nursing or professional observation, evaluation, and medical/rehabilitation services, but does not require daily physician evaluation
Pre-admission testing	Requires pretreatment diagnostic services
Outpatient care	Requires hospital-based therapeutic or diagnostic services that can be delivered on an outpatient basis. These are services that must be provided from a hospital base (e.g., diagnostic, therapeutic and/or physician services)
Community care	Requires the care and services provided through non-hospital/community-based counseling and rehabilitation services. These are services that can safely and effectively be provided in the community, they do not need to be provided through a hospital. Community services do not include medical or drug related services (these will either be home care or outpatient)
Home care	Requires physician directed home-based care (i.e., medical or drug services)
Palliative care	Terminally ill (i.e., life prognosis less than 6 months) and requires palliative management of illness
Respite	Planned 24-hour unskilled care with skilled care available as needed; respite is offered when family or caregivers need temporary relief from care giving responsibilities. (Patient goes to facility for care)
Crisis management	Unplanned short-term need for intensive community or home service (e.g., to prevent hospitalization, relapse, or harm). Care goes to patient, usually a short-term (e.g., 24-48 hours) strategy
Assisted living	Requires assistance provided through group home living (approved or official group home). Provides supervised living to residents
Home	Could be at home; requires no additional care
Other	Requires care not specified above

Table 2. Reasons alternate levels of care were not used

Reason	*Description*
Service delivery	• Required services do not exist • Required services exist but are not currently available • Referral for discharge not sent to necessary service • Waiting for test/procedures • Waiting for assessment from health care professional
Clinical	• Physician's individual practice/choice • Waiting further improvement in psychiatric condition with documented evidence that condition is currently improving and improvement will place patient at another level of care and improvements are expected over the short-term (days not months) • Waiting for further improvement in medical condition with documented evidence that condition is currently improving and improvement will place patient at another level of care and improvements are expected over the short-term (days not months)
Other	• Patient (family) refuses discharge • Patient (family) is having difficulty making decision on further care • Family is not able to provide the needed support • Family support system not available • Mandated Admission in effect • Waiting for transportation • Unable to contact physician for discharge order • No documented evidence available to categorize reason • Other

last acute hospital day. At that time, study nurses noted all community services received since hospital discharge, and reassessed the patient's symptom severity and level of functioning.

Research nurses completed four phases of data collection with study participants: an admission review, a daily inpatient review, a discharge review, and a community follow-up review.

Hospital readmission rates were determined using administrative data obtained from Saskatchewan Health. Rates were calculated based on number of psychiatric hospital admissions within 30 days of discharge.

This study was reviewed and approved by the University of Saskatchewan's ethics committee. We preserved the confidentiality of all data collected using study identification numbers for primary data, and scrambled health service numbers (replaced with study identification numbers after data linking) for provincial administrative data. HSURC research staff did not know the identity of patients.

Findings

Descriptions of patients

Of the 409 patients admitted to the units during the study:

- 21 (5%) were discharged before they could be approached for participation,
- 173 (42%) were not eligible to participate (i.e., 23% were younger than 18 or older than 65 years of age, 11% lived outside the service area, 4% had already been enrolled into the study on a previous admission, and 4% for other reasons), and
- 55 (13%) refused participation. There were no statistically significant differences in age, sex, or diagnosis between enrolled patients and those who refused participation.

Of the 409 patients admitted to the units during the study, 173 (42%) were not eligible to participate.

Our sample thus consisted of 160 patients: 74 from Prince Albert, 64 from Saskatoon, and 22 from East Central. Of this sample, 51 per cent were female, 57 per cent were under the age of 40, and 54 per cent had a severe psychiatric disorder, defined as a diagnosis of schizophrenia, other psychoses, or bipolar disorder (Table 3).

Table 3. Description of study patients at admission

Variable	%	*Variable*	%
Female	51	Severe diagnosis	54
Under 40 years of age	57	*Schizophrenia or other psychoses*	33
Married / common law	28	*Bipolar disorder*	21
Less than high school completion	50	Other diagnosis	46
Completed high school	21	*Depression*	33
Some / completed post-secondary	28	*Substance related*	6
Living with family / partner	49	*Other*	8
Living alone	23	Psychotic	39
Living in a group home / institution	7	Acute onset of present episode	39
Other living arrangements	21	Taking anti-psychotic medication	44
Employed	40	Co-morbid psychiatric condition	58
Support system present	80	Co-morbid medical condition	36
Involuntary admission	16	Chronic duration of illness	67

Study nurses were able to complete full community follow-up reviews (BPRS, GAF, and community service use) with 94 (59%) of the 160 study participants, and partial community follow-up reviews (i.e., details on the patient's community service use only) with an additional 29 (18%). The remaining participants were lost to follow-up, and only provided information for the first three phases of data collection (i.e.,

the phases completed during their inpatient hospital stay). There were no significant differences between those patients successfully followed up in the community and those lost to follow-up in terms of their diagnosis, symptom severity (BPRS) at discharge, or level of functioning (GAF) at discharge.

Hospital readmission data were available for all enrolled patients, regardless of whether study nurses were able to contact them for their community follow-up review.

Length of stay

Patients' lengths of stay varied considerably, with a range of 1 to 60 days and a standard deviation of 10. The mean (average) length of stay was 12 days. There were no significant differences in mean length of stay by site. The median length of stay, which controls for especially short- or long-stay patients, was nine days. Seventy-one per cent of patients had stays less than two weeks (defined as short-stay patients) and 29 per cent had stays of more than two weeks (defined as long-stay patients).

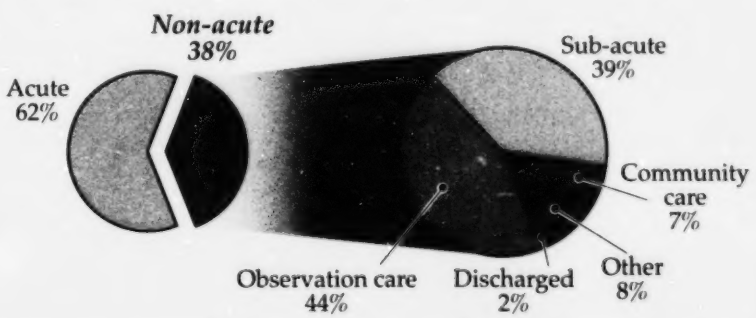
Seventy-one per cent of patients had stays less than two weeks and 29 per cent had stays of more than two weeks.

Acuity of hospitalization

We defined an acute admission as an admission in which the patient met the ISD-AC® criteria for an acute stay on either Day 1 or Day 2 (or both) of his or her hospital stay. Using this definition, 62 per cent of admissions were acute and 38 per cent were non-acute (Figure 1). The most common alternate levels of care assigned by the study nurses on these non-acute days were observation care (44%) and sub-acute care (39%). Study nurses indicated that these alternate levels of care were not used because they do not exist.

Only 18 per cent of subsequent hospital days (all hospital days after Day 2 of the hospital stay) were acute, and 82 per cent were non-acute

Figure 1. Acuity and alternate levels of care on admission day

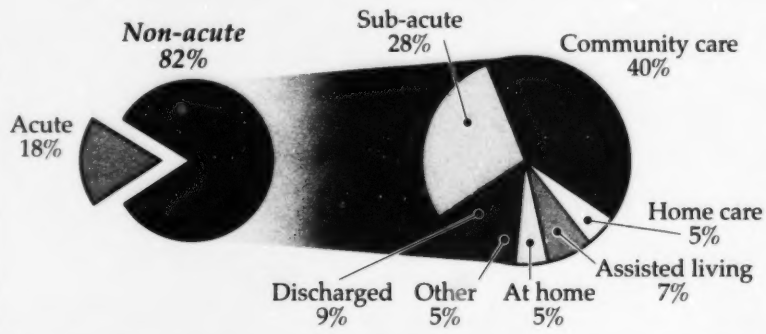


62 per cent of admissions were acute and 18 per cent of subsequent hospital days were acute.

(Figure 2). Patients spent an average of eight post-acute days (days after their last acute day) in hospital. When separated into short and long-stay patients, the average number of post-acute days spent in the hospital was five (standard deviation=4) and 14 (standard deviation=7), respectively. The most common alternate levels of care assigned for these non-acute days were community care (40%) and sub-acute care (28%). The main reasons community care was not received were: (1) clinical reasons, especially "physician individual practice/choice," and (2) service delivery reasons, especially "waiting for tests or assessment from a health care professional."

The most common alternate levels of care assigned for these non-acute days were community care (40%) and sub-acute care (28%).

Figure 2. Acuity and alternate levels of care on subsequent days



Community services

Study participants were referred to an average of four community services on hospital discharge. The five most commonly referred services were (1) psychiatrist visits, (2) medication monitoring, (3) community mental health nurse visits, (4) family doctor visits, and (5) visits with other mental health workers.

Study participants received an average of three services during the follow-up period. The five most commonly received services were (1) psychiatrist visits, (2) medication monitoring, (3) family doctor visits, (4) community mental health nurse visits, and (5) depot medications.

Community services by length of stay

To test whether short-stay patients use more community services than long-stay patients, we first adjusted the data to account for other factors that might affect community service use. We adjusted for diagnosis and BPRS and GAF discharge scores, because short-stay patients tended to have less severe diagnoses, less symptom severity, and better functioning than long-stay patients, and therefore may have required fewer community services. We also adjusted for number of

follow-up days spent in the community (outside the hospital). Since long-stay patients had a greater number of post-acute days in hospital than short-stay patients, their follow-up time in the community was, on average, less than that for short-stay patients.

After making these adjustments, a linear regression analysis showed that length of stay did not predict the total number of community services referred or received. We also examined the relationship between length of stay and each of the five most referred and five most received services. After adjustments, we found that patients with short hospital stays (two weeks or less) had fewer referrals to medication monitoring in the community than long-stay patients. Length of stay did not predict referrals to any of the other four most referred services, nor did it predict receipt of any of the five most commonly received services.

Outcomes by length of stay and community service use

Patient outcomes were assessed in terms of symptom severity (BPRS) and level of functioning (GAF). Patients had significantly lower symptom severity at discharge than admission, but there was no significant difference between discharge and follow-up scores. Similarly, patient level of functioning improved significantly at discharge relative to admission, but was not significantly different from follow-up level (Table 4).

Table 4. Mean BPRS and GAF scores by length of stay

	Short stay ***(2 weeks or less)***	***Long stay*** ***(greater than 2 weeks)***	***Total***
BPRS* at admission	53	57	54
BPRS at discharge	35	40	37
BPRS at follow-up	37	42	39
GAF** at admission	44	40	43
GAF at discharge	64	60	63
GAF at follow-up	67	56	63

** The higher the BPRS score, the greater the symptom severity.*
***The higher the GAF score, the greater the functioning.*

Length of stay did not predict referrals to any of the other four most referred services, nor did it predict receipt of any of the five most commonly received services.

Before adjusting the data to account for differences in clinical status (i.e., diagnosis and BPRS and GAF scores at discharge) and time in community, a linear regression analysis showed that patients with short hospital stays had higher GAF scores at follow-up, indicating better functioning (Table 4). This makes sense, given that short-stay

patients tended to have better functioning at admission and, therefore, would be expected to need fewer days of hospital care than patients with lower functional levels. In terms of mean BPRS scores at follow-up, however, there were no statistically significant differences between short- and long-stay patients.

After adjusting for clinical status and time in community, short-stay patients did not differ from long-stay patients in BPRS or GAF at follow-up. Thus, after adjusting for clinical severity and time in community, short- and long-stay patients had similar outcomes.

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Total number of community services received was not associated with BPRS or GAF scores at follow-up, even after adjusting for clinical status and time in community. Analyzing the effect of each of the five most common community services received, we again found no differences in outcomes, with or without adjustments.

Readmission by length of stay

At follow-up, participants' mean readmission rate was 16 per cent. Before adjustments, a logistic regression analysis showed that patients with short stays were more likely to have lower readmission rates at follow-up than long-stay patients. After adjusting for clinical status, however, there was no difference in readmission rates between short and long-stay patients.

After adjusting for clinical status there was no difference in readmission rates between short and long-stay patients.

Discussion

Our findings suggest:

- There is significant non-acute use of the three psychiatric units.
- Community services do not appear to substitute for longer hospital stays.
- Longer hospital stays do not appear to produce better patient outcomes, nor do shorter stays appear to be associated with poorer outcomes.
- Post-discharge community service use does not appear to produce better patient outcomes.
- Shorter hospital stays are not associated with increased readmission rates.

Why do psychiatric patients spend so many non-acute days in acute care beds?

Our results suggest that psychiatric patients receive more acute care than is necessary. Although a majority of admissions were acute, over a third were non-acute. For subsequent days, over 80 per cent were non-acute. On average, patients spent eight days in hospital after their last

acute day, indicating that their last week of hospital stay could have been spent in a more appropriate level of care. What accounts for these high rates of non-acute use?

In the case of non-acute admissions, the majority of patients do require the close medical and nursing services offered by hospital care, just not an acute level of hospital care. However, these alternative levels of hospital-based care (observation care and sub-acute care) are not currently offered on psychiatric wards in Saskatchewan hospitals. As a result, it makes sense that these patients would be placed in acute care, as this is the only level of hospital-based care available.

In the case of subsequent hospital days, however, the reasons for non-acute days in acute care are less clear. The most common alternate level of care for these non-acute days, community-based care, exists and is available in the Saskatchewan communities included in the study. Why are patients not receiving community care on these days?

Based on stakeholder feedback during presentations of this study's findings, we think there may be several barriers preventing mental health clients from receiving the community-based services they need:

- The appropriate community-based services may not be available immediately. Rather than discharging patients who need immediate community-based care and placing them on a wait list, physicians or treatment teams may instead opt to keep their patients in hospital until other services are available, thereby guaranteeing that their clients continue to get some form of care.
- Continuity of care may be lacking. It is unclear how well integrated the various community services are, how well integrated inpatient and community care are with each other, and how this varies from community to community. It is possible that lack of integration, lack of communication, or uncertainty about the quality of community-based care may be influencing physicians' decisions about whether to keep clients in hospital or refer them to community care.
- The discharge planning process may vary within and across sites. Improvements in discharge planning might result in shorter hospital stays and reduced non-acute use.

We had expected that, after adjusting for important factors that may differ by length of stay, short-stay patients would be referred to and receive more community services than long-stay patients.

How does length of stay affect community service referrals and utilization?

We had expected that, after adjusting for important factors that may differ by length of stay, such as diagnosis and symptom severity, short-stay patients would be referred to and receive more community

services than long-stay patients. Our rationale was that community care would substitute for the non-acute hospital care that short-stay patients did not receive. In fact, the only difference we found between short- and long-stay patients was in the number of medication monitoring referrals, and the pattern was the opposite of what we anticipated: Long-stay patients received more, not fewer, referrals to medication monitoring than short-stay patients. What accounts for this unexpected finding for medication monitoring referrals, and why were there no other differences in community care for short- and long-stay patients?

We examined the community service use of only those mental health clients admitted to hospital during the study period. We did not capture the larger number of clients who access non-hospital-based services only.

In the case of medication monitoring referrals, one relevant factor we did not sufficiently address in this study was treatment compliance. Some patients may be kept in hospital for longer periods due to noncompliance. If a significant portion of long-stay patients are experiencing difficulties with treatment adherence, it makes sense that these patients would receive more medication monitoring referrals than short-stay patients — even after adjusting for other clinical factors like diagnosis and symptom severity.

The lack of differences between long- and short-stay patients in terms of their community care referral rates and use is puzzling, but we suspect that the factors noted in the previous section provide at least partial explanations: timely access to appropriate community services, lack of consistent discharge planning and referral practices, and lack of continuity of care.

How does community service use affect patient outcomes?

We found no relationship between community services and client outcomes. Does this mean that community-based services do not benefit mental health clients? Although this is one possible explanation, it is also possible that any positive effects of community care were not evident from the data due to other factors, such as the following:

- Our community care measures only enabled us to assess whether the amount of community services received were associated with better outcomes; they did not enable us to assess whether patients received timely, appropriate, high-quality, well-integrated community care, and how this affects client outcomes.
- We examined the community service use of only those mental health clients admitted to hospital during the study period. We did not capture the larger number of clients who access non-hospital-based services only. A comprehensive evaluation of community-based mental health services would have to include these clients as well.
- Patients in this study received an average of three community

services during their post-acute period. The finding that community care was not associated with client outcomes may be partly due to a floor effect; that is, clients in our study may not have received a sufficient level of community services to expect a noticeable effect on outcomes.

How does length of stay affect readmission rates and patient outcomes?

Short hospital stays do not appear to adversely affect outcomes or readmission rates. After adjusting for what we considered to be the most likely systematic differences between short-stay and long-stay patients — clinical status and time in community — we found that short hospital stays do not result in higher readmission rates, and thus did not support the "revolving door" hypothesis. We also found that, after adjustments, short stays were not associated with poorer functional levels or greater symptom severity at follow-up relative to long stays.

Short hospital stays do not appear to adversely affect outcomes or readmission rates.

These results are consistent with systematic reviews of the literature[1], which conclude that for most patients, short hospital stays do not result in higher readmission rates, are not associated with worse clinical outcomes, and may result in better social, psychological and occupational functioning than long stays. Thus, the results of this pilot suggest that not only are costly acute care services being overused in mental health, but also that this overuse does not provide any increased benefits to clients.

What are the limitations of this study?

Aside from previously mentioned weaknesses, this pilot study had two additional limitations. First, our findings are not representative of the larger mental health population. Our eligibility criteria, particularly the age restriction, excluded a significant portion of potential participants in the study. Diagnosis, length of stay, and several other factors vary as a function of age, and therefore the results of this study cannot be generalized beyond the 18-65 year old age group. Also, only three sites participated in this pilot study. A larger-scale study including other psychiatric facilities would need to be conducted to determine how representative these findings are of Saskatchewan as a whole.

These results are consistent with systematic reviews of the literature, which conclude that for most patients, short hospital stays do not result in higher readmission rates, are not associated with worse clinical outcomes, and may result in better social, psychological and occupational functioning than long stays.

A second limitation to our study was the sample size. Although we feel that the sample size was adequate for overall acuity ratings, alternate levels of care, and readmission rates, which were based on the total sample size of 160, we are less confident in the analyses involving follow-up data, in which the sample size was less than

100. For these analyses, a larger sample would have given us more statistical power to detect true differences or effects that perhaps were not picked up from our small sample size.

Recommendations

The scope of this pilot study does not enable us to recommend specific changes to the way mental health services are structured or delivered by Saskatchewan health districts. The results of the pilot do, however, support general recommendations that call for health districts (including managers, policy makers, physicians, nurses, and all other mental health care providers) to review their use of inpatient and community based care.

The shift to alternate levels of care reflects a desire to provide treatment in the least invasive environment. Inpatient facilities must be recognized as only one (albeit important) element of the mental health treatment continuum.

1. **Health districts should continue to shift non-acute mental health treatment from acute care to more appropriate alternate levels of care, such as sub-acute and community-based care.**

   The shift to alternate levels of care reflects a desire to provide treatment in the least invasive environment. Inpatient facilities must be recognized as only one (albeit important) element of the mental health treatment continuum. This shift in the location of care will allow treatment teams to safely discharge patients earlier to alternate non-acute care, thereby enabling the team to focus on providing acute care. To achieve this shift, managers, policy makers, and health care providers in health districts should work together to:

   - Assess the extent of non-acute use of their psychiatric inpatient units.
   - Identify the alternate levels of care needed in their area.
   - In cases where the necessary alternate levels of care do not exist, they should examine the feasibility of offering these alternatives and, where appropriate, implement them.
   - In cases where the alternate levels of care do exist, they should identify the barriers that prevent these sources from being used and develop strategies to overcome these barriers.
   - Develop clear and explicit guidelines for admissions and especially subsequent hospital days.

2. **Health districts should enhance the communication and co-ordination of care between hospitals and alternate services, both within and between districts.**

   Managers, policy makers and health care providers can support this by:

   - Starting a discharge planning process at admission that is multi-disciplinary and based on the client's individual needs. Timely

and appropriate referrals may improve patient compliance and will help to ensure that alternate services are in place when the patient is ready for discharge.
- Conducting a needs assessment of the availability, effectiveness, and appropriateness of the present community-based services, gaps in services, and barriers to change.
- Developing a strategic plan that reconfigures resources and services to better meet the needs of the mental health population.

3. **Health districts should work together with Saskatchewan Health to ensure that provincial databases support evaluation of mental health services in all health districts.**

   This would include:

   - Mandating the tracking of specific service events on a continual or regular basis.
   - Adding mandatory fields to measure the outcomes of service, such as assessments of symptoms and functioning.

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HSURC staff involved in the project were:
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Further information

This is the fourth in a series of Issues and Directions papers. These papers are intended to highlight for discussion, rather than definitively examine, topical issues. They present an overview of research, an informal assessment of the Saskatchewan environment, and may include general recommendations developed by HSURC's board.

Additional printed copies of this report are available. To order contact:

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